

CLAIMS

What we claim is:

1. In an improved first aerostabilizer for vehicles that is capable of changing to a more vertical position when the vehicle is decelerated to thereby add an aerodynamic braking force that aids in stopping the vehicle, the improvement comprising:
a weight in communication with the first aerostabilizer wherein said weight is free to move at a different rate than the first aerostabilizer when the vehicle is decelerated, such movement of said weight, by means of its communication with the first aerostabilizer, places a biasing force on said first aerostabilizer thereby allowing said first aerostabilizer to rotate about a pivot resulting in a raising of one end of the first aerostabilizer higher than another end of said first aerostabilizer.
2. The improved first aerostabilizer of claim 1 which further comprises a second aerostabilizer in communication with the first aerostabilizer and wherein said second aerostabilizer moves with the first aerostabilizer.
3. The improved first aerostabilizer of claim 1 which further comprises a second aerostabilizer that is, at least partially, independent of movement of the first aerostabilizer.
4. The improved first aerostabilizer of claim 1 wherein the pivot is disposed proximal an average fore to aft mid-point of the first aerostabilizer.

5. The improved first aerostabilizer of claim 1 wherein the pivot is disposed within fifteen percent of a midpoint of an average fore to aft length of the first aerostabilizer.
6. The improved first aerostabilizer of claim 1 wherein the pivot is disposed within thirty percent of a midpoint of an average fore to aft length of the first aerostabilizer.
7. The improved first aerostabilizer of claim 1 wherein the pivot is disposed within forty-five percent of a midpoint of an average fore to aft length of the first aerostabilizer.
8. The improved first aerostabilizer of claim 2 wherein the pivot is disposed approximate an average of an algebraic sum of fore to aft lengths and spacings of the first and second aerostabilizers.
9. The improved first aerostabilizer of claim 2 wherein the pivot is disposed within fifteen percent of a midpoint of an algebraic sum of fore to aft lengths and spacings of the first and second aerostabilizers.
10. The improved first aerostabilizer of claim 2 wherein the pivot is disposed within thirty percent of a midpoint of an algebraic sum of fore to aft lengths and spacings of the first and second aerostabilizers.
11. The improved first aerostabilizer of claim 2 wherein the pivot is disposed within forty-five percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the first and second aerostabilizers.

12. The improved first aerostabilizer of claim 1 which further comprises one or more additional aerostabilizers in communication with and move when the first aerostabilizer moves.
13. The improved first aerostabilizer of claim 12 wherein the pivot is disposed within fifteen percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the aerostabilizers.
14. The improved first aerostabilizer of claim 12 wherein the pivot is disposed within thirty percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the aerostabilizers.
15. The improved first aerostabilizer of claim 12 wherein the pivot is disposed within forty-five percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the aerostabilizers.
16. The improved first aerostabilizer of claim 1 wherein communication means of said weight with the first aerostabilizer includes a first connecting lever.
17. The improved first aerostabilizer of claim 1 wherein communication means of said weight with the first aerostabilizer includes a second connecting lever.
18. The improved first aerostabilizer of claim 16 wherein communication means of said weight with the first aerostabilizer includes a first gear.
19. The improved first aerostabilizer of claim 16 wherein communication means of said weight with the first aerostabilizer includes a second gear.

20. The improved first aerostabilizer of claim 1 which further includes a resiliently biasing means to dampen movement of the weight.
21. The improved first aerostabilizer of claim 20 wherein the resiliently biasing means is, at least in part, a spring.
22. The improved first aerostabilizer of claim 20 wherein the resiliently biasing means is, at least in part, a dashpot.
23. The improved first aerostabilizer of claim 1 wherein said weight is disposed, at least partially, internal to a first stanchion and wherein said first stanchion is disposed between the first aerostabilizer and an attachment means on the vehicle.
24. The improved first aerostabilizer of claim 23 which further includes a second stanchion with said first and said second stanchion in communication by a connecting structure where said connecting structure is disposed, at least primarily, below the first aerostabilizer and above the attachment means on the vehicle.
25. The improved first aerostabilizer of claim 21 wherein a vehicle stoplight is mounted to said connecting structure.
26. In an improved first aerostabilizer for vehicles that is capable of changing to a more vertical position when the vehicle is decelerated to thereby add an aerodynamic braking force that aids in stopping the vehicle, the improvement comprising:
a weight in communication with the first aerostabilizer wherein said weight, when the vehicle is decelerated, applies a force to the first

aerostabilizer that causes said first aerostabilizer to rotate to a more vertical orientation.

27. The first aerostabilizer of claim 26 wherein said first aerostabilizer rotates around a pivot.

28. The improved first aerostabilizer of claim 26 which further comprises a second aerostabilizer in communication with the first aerostabilizer and wherein said second aerostabilizer moves with the first aerostabilizer.

29. The improved first aerostabilizer of claim 26 which further comprises a second aerostabilizer that is, at least partially, independent of movement of the first aerostabilizer.

30. The improved first aerostabilizer of claim 27 wherein the pivot is disposed proximal an average fore to aft mid-point of the first aerostabilizer.

31. The improved first aerostabilizer of claim 27 wherein the pivot is disposed within fifteen percent of a midpoint of an average fore to aft length of the first aerostabilizer.

32. The improved first aerostabilizer of claim 27 wherein the pivot is disposed within thirty percent of a midpoint of an average fore to aft length of the first aerostabilizer.

33. The improved first aerostabilizer of claim 27 wherein the pivot is disposed within forty-five percent of a midpoint of an average fore to aft length of the first aerostabilizer.

34. The improved first aerostabilizer of claim 28 wherein a pivot is disposed approximate an average of an algebraic sum of fore to aft lengths and spacings of the first and second aerostabilizers.
35. The improved first aerostabilizer of claim 28 wherein a pivot is disposed within fifteen percent of a midpoint of an algebraic sum of fore to aft lengths and spacings of the first and second aerostabilizers.
36. The improved first aerostabilizer of claim 28 wherein a pivot is disposed within thirty percent of a midpoint of an algebraic sum of fore to aft lengths and spacings of the first and second aerostabilizers.
37. The improved first aerostabilizer of claim 28 wherein a pivot is disposed within forty-five percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the first and second aerostabilizers.
38. The improved first aerostabilizer of claim 26 which further comprises one or more additional aerostabilizers in communication with and move when the first aerostabilizer moves.
39. The improved first aerostabilizer of claim 38 wherein a pivot is disposed within fifteen percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the aerostabilizers.
40. The improved first aerostabilizer of claim 38 wherein a pivot is disposed within thirty percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the aerostabilizers.

41. The improved first aerostabilizer of claim 38 wherein a pivot is disposed within forty-five percent of a midpoint of an algebraic sum of the fore to aft lengths and spacings of the aerostabilizers.
42. The improved first aerostabilizer of claim 26 wherein communication means of said weight with the first aerostabilizer includes a first connecting lever.
43. The improved first aerostabilizer of claim 26 wherein communication means of said weight with the first aerostabilizer includes a second connecting lever.
44. The improved first aerostabilizer of claim 26 wherein communication means of said weight with the first aerostabilizer includes a first gear.
45. The improved first aerostabilizer of claim 26 wherein communication means of said weight with the first aerostabilizer includes a second gear.
46. The improved first aerostabilizer of claim 26 wherein said weight is disposed, at least partially, internal to a stanchion and wherein said stanchion is disposed between the first aerostabilizer and an attachment means on the vehicle.
47. The improved first aerostabilizer of claim 46 which further includes a second stanchion with said first and said second stanchion in communication by a connecting structure where said connecting structure is disposed, at least primarily, below the first aerostabilizer and above the attachment means on the vehicle.

48. The improved first aerostabilizer of claim 47 wherein a vehicle stoplight is mounted to said connecting structure.

49. In an improved first aerostabilizer for vehicles that is capable of changing to a more vertical position when the vehicle is decelerated to thereby add an aerodynamic braking force that aids in stopping the vehicle, the improvement comprising:

a weight in communication with the first aerostabilizer wherein said weight, when the vehicle is decelerated, applies a force to the first aerostabilizer that causes said first aerostabilizer to rotate to a more vertical orientation and wherein a pivot about which the first aerostabilizer rotates is disposed to aid in providing a balancing of aerodynamic and weight forces about said pivot when the vehicle decelerates.

50. The improved first aerostabilizer of claim 49 which further comprises a second aerostabilizer in communication with the first aerostabilizer and wherein said second aerostabilizer moves with the first aerostabilizer.

51. The improved first aerostabilizer of claim 49 which further comprises a second aerostabilizer that is, at least partially, independent of movement of the first aerostabilizer.

52. The improved first aerostabilizer of claim 49 wherein the pivot is disposed proximal an average fore to aft mid-point of the first aerostabilizer.

53. The improved first aerostabilizer of claim 49 which further comprises one or more additional aerostabilizers in communication with and move when the first aerostabilizer moves.